

CLAIMS

1. A shoe with foot massaging sole, characterized in that it comprises a tank, which is located within the shoe sole, and a pump, which is located below the heel of the foot and is actuated by said heel of the foot while walking, said pump introducing air in said tank, which gradually increases its internal pressure, an air discharge duct branching out from said tank, an adjustable valve being interposed along said air discharge duct and opening when a preset pressure is reached, said valve feeding at least one elastic chamber provided in an upper region, i.e., toward the sole of the foot, with a plurality of studs, which are inserted in corresponding holes provided in a foot supporting insole, said studs, when the air is discharged, protruding from said holes and acting on the sole of the foot, said outflowing air being conveyed, preferably by means of a tube, into the shoe and thus producing an internal ventilation.
- 15 2. The shoe according to claim 1, characterized in that said pump is of the membrane type, is arranged within the heel of the shoe and is covered by a deformable insole on which the heel of the foot acts.
3. The shoe according to claim 1, characterized in that said pump is of the piston type.
- 20 4. The shoe according to claim 1, characterized in that said valve that controls the output duct of the tank is adjustable to a chosen pressure within a range between atmospheric pressure and the safety pressure of the tank.
5. The shoe according to claim 1, characterized in that said valve has a single output if the sole has a single elastic chamber.
- 25 6. The shoe according to claim 1, characterized in that said valve has a plurality of outputs, i.e., one for each one of the elastic chambers, when more than one elastic chamber is provided.
7. The shoe according to claims 1 and 6, characterized in that in the case of a plurality of elastic chambers with said valve a single elastic chamber is selectable into which the air is discharged or a plurality of

elastic chambers are selectable into which the air is discharged simultaneously.

8. The shoe according to claims 1 and 6, characterized in that said valve discharges the air sequentially into the elastic chambers.

5        9. The shoe according to claim 1, characterized in that said valve is of the type with discharge performed by a plurality of consecutive pulses.

10      10. The shoe according to claim 1, characterized in that said elastic chamber is constituted by a bag made of elastic material, said bag having, on its upper wall directed toward the sole of the foot, a plurality of studs, which are inserted in corresponding holes provided in a supporting insole interposed between said elastic chamber and the sole of the foot.

15      11. The shoe according to claims 1 and 9, characterized in that in the inactive condition said studs do not protrude from said foot supporting insole, while when the air pressure pulse occurs said studs protrude from said holes.

20      12. The shoe according to claim 1, characterized in that said holes provided in the foot supporting insole have a frustum-like shape, with an upper end whose diameter is substantially equal to the diameter of the stud and a lower end that is much wider in order to allow the elastic deformation, under pressure, of the upper wall of the elastic chamber, with simultaneous protrusion of the studs from said foot supporting insole.

25      13. The shoe according to claim 1, characterized in that in a point affected by the passage of the air during discharge, a refillable tank is provided that contains fragrancing and/or sanitizing products, which are conveyed by the air into the shoe at each discharge.

14. The shoe according to claim 1, characterized in that said pump draws air from the outside of the shoe.

15. The shoe according to claim 1, characterized in that said pump draws air from the inside of the shoe.

30      16. The shoe according to claim 1, characterized in that the air that

exits from the elastic chamber or chambers is discharged outside the shoe.

17. The shoe according to claim 1, characterized in that said pump is composed of multiple pump, each of the individual pumps feeding a single tank, each one of said tanks being provided with an adjustable valve, each 5 one of said valves supplying at least one elastic chamber.

18. The shoe according to claim 1, characterized in that said elastic chamber is an elastic tube with a preset path under the foot supporting insole.